

WHAT IS CLAIMED IS:

1. An interior optical cable comprising:
a plurality of tight buffer optical fibers;
a subsidiary tension member surrounding the outer circumferences of the
5 optical fibers; and
an outer coating layer surrounding the subsidiary tension member,
wherein the tight buffer optical fibers has a predetermined lay ratio to the outer
coating layer.
2. The interior optical cable as set forth in claim 1, wherein the predetermined
10 lay ratio is in the range of -0.3 to 0.3%.
3. The interior optical cable as set forth in claim 1, wherein the outer coating
layer is formed by extrusion molding.
4. The interior optical cable as set forth in claim 1, wherein each of the tight
buffer optical fibers includes:
a core adapted as a medium for transmitting an optical signal;
a clad layer surrounding the core;
15 a coating layer surrounding the clad layer; and
a tight coating layer formed by extrusion-molding polyolefin so as to surround
the outer circumference of the coating layer.
5. The interior optical cable as set forth in claim 1, wherein the tight coating
layer is formed by extrusion-molding polyolefin to which a fire retardant is added.

6. The interior optical cable as set forth in claim 5, wherein the fire retardant includes aluminum tri-hydroxide.

7. The interior optical cable as set forth in claim 4, wherein the polyolefin employed as the tight coating layer has an oxygen quotient of more than approximately 28%.

8. The interior optical cable as set forth in claim 2, wherein the tight buffer optical fibers has a lay ratio in the range of 0.2 to 0.5% after the interior optical cable shrinks due to the variation in external temperature.

9. The interior optical cable as set forth in claim 1, wherein the tight buffer optical fibers are twisted to have a S-Z structure.

10. The interior optical cable as set forth in claim 1, wherein the tight buffer optical fibers are twisted to have a helical structure.

11. The interior optical cable as set forth in claim 1, wherein the outer coating layer is made of a polymeric plastic selected from the group consisting of PVC, polyethylene, polyolefin, and Hytrel.

12. The interior optical cable as set forth in claim 1, wherein the outer coating layer has a post-shrinkage rate of not more than 0.7%.